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1. Examiner Andrea Valenti	USPTO	703-305-0285	703-305-3010

From: Michael S. Gzybowski**Date:** July 16, 2002

Re: 09/837,020

Our Ref.: TKA0028

Comments: Attached is a Response After Final Under 37 CFR 1.116/ Request for Reconsideration which we are filing by facsimile on July 16, 2002 in the above-identified patent application.

Return To: Pat Spychalski**OFFICIAL FAX RECEIVED****Total number of pages, including cover letter:** 9

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PATENT APPLICATION***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Group }
Art Unit: 3643 }
 }
Attorney }
Docket No.: TKA0028 }
 }
Applicant: Yasushi KOHNO et al. }
 }
Invention: Method of Preventing Defective }
 Germination or Growth of Plant }
 }
Serial No: 09/837,020 }
 }
Filed: April 18, 2001 }
 }
Examiner: Andrea Valenti }

**RESPONSE AFTER FINAL
UNDER 37 CFR §1.116
EXPEDITED PROSECUTION REQUESTED**

Certificate Under 37 CFR 1.8(h)

I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office via facsimile on the date indicated below.

on July 16, 2002


Michael S. Gzybowski

**RESPONSE AFTER FINAL UNDER 37 CFR §1.116
REQUEST FOR RECONSIDERATION**

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JUL 16 2002

GROUP 3600

Assistant Commissioner for Patents
Washington, D.C. 20231

OFFICIAL

Sir:

The Official Action of June 5, 2002 has been thoroughly studied. Accordingly, the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 1-13 are pending in this application.

Claims 1 and 13 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,701,700 to Kohno et al.

Claims 2-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kohno et al.

Claims 7-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kohno et al. in view of U.S. Patent No. 5,525,131 to Asano.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art relied upon by the Examiner and therefore, each of the outstanding rejections of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is respectfully requested.

On page 2 of the Official Action, the Examiner states that:

Kohno et al inherently teaches a method of preventing defective germination or growth of a plant by the steps of: encapsulating one plant seed or a plurality of plant seeds in an aqueous gel capsule (Kohno Col. 1 line 1-20); refrigerating the plant seeds under the condition that the plant seeds do not germinate (Kohno Col. 4 line 39); and sowing the plant seeds (Kohno Col. 1 line 21-25 and Col 3 line 27-36).

Kohno et al. does not "inherently teach [es] a method of preventing defective germination or growth of a plant" as the Examiner states.

Rather, Kohno et al. teach a method for storing gel-coated seeds in such a manner that the rate of germination is not adversely affected. This is readily apparent from the teachings of Kohno et al. at column 3, lines 50-54 whereat Kohno et al. verify that their method of storing seeds did not adversely affect the rate of germination of the seeds. Specifically, Kohno et al. state:

The gel-coated seeds thus stored exhibit equal rate of germination and rate of sticking out to those of the gel-coated seeds immediately after preparation.

It is submitted that a rather that teach "a method of preventing defective germination or growth of a plant" as the Examiner states, Kohno et al. only teaches a method of storing seeds and goes on to verify that the rate of germination of the stored seeds is equal to the rate of germination of seeds that have not been stored.

It is only the Examiner's conjecture that Kohno et al. teach "a method of preventing defective germination or growth of a plant" Absent reliance upon applicants' own disclosure, neither the Examiner nor anyone else would conclude that Kohno et al. teach "a method of preventing defective germination or growth of a plant"

As regards inherency, it has been held by the court of patent appeals:

Inherency is quite immaterial if, as the record establishes here, one of ordinary skill in the art would not appreciate or recognize that inherent result.

And

The inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is known. See *In re Sherry*, 195 USPQ 753 (CCPA 1977); *In re Spormann*, 150 USPQ 449 (CCPA 1966); *In re Adams*, 148 USPQ 742 (CCPA 1966)

In the present situation, inherency is rebutted by the fact that applicants' have established on the record that their method results in improved germination rate. Note specifically applicants' examples and comparative examples on pages 6-9 of their specification. Such results are certainly not "inherent," especially when Kohno et al. were only able to establish an "equal rate of germination" and no specific improvement in germination rate.

In Tables 1 and 2 on page 8, it is seen that in all of the examples, the date of germination and date of bolting were earlier for the stored seeds as compared to the seeds that were not stored.

The germination and bolting data from Table 1 is reproduced here below in Table 1A

TABLE 1A

Example	Treatment	Date of Germination	Date of Bolting
Comparative A	None	June 24	August 24
A	Refrigeration	June 20	August 13
Comparative B	None	June 26	August 25
B	Refrigeration	June 22	August 7
Example C	None	June 25	August 26
C	Refrigeration	June 21	August 7

The results shown in Table 1A above are neither taught, suggested nor inherent over Kohno et al.

On page 3 of the Official Action the Examiner states that it would have been obvious to apply the teachings of Kohno et al. to a seed equal to or less than 1 mm "for the enhanced germination effects taught by Kohno et al since applicant provides no criticality in the specification for the size..."

Again it is urged that contrary to the Examiner's statement, Kohno et al. does not teach "enhanced germination effects."

As regard the size of seeds, applicants teach on page 6, lines 4-8 that "...when the size of the plant seed is equal to or less than 1 mm,an accurate sowing can be easily and securely implemented..."

The Examiner's reference to coat tobacco seeds is believed to be for the purpose of enlarging the tobacco seeds with a soil coating in order to improve the handling since tobacco seeds are too small to handle well. That is, the coating of tobacco seeds is different from the gel coating of seeds according to either the present invention or Kohno et al.

The Examiner has relied upon Asano as teaching that it is old and well-known in the art of plant husbandry to palletize a seed, and has taken the position that it would have been obvious to "apply the gel coating of Kohno et al. to the palletized seed of Asano for the mechanized and economical distribution of the seeds in the field."

Contrary to the Examiner's position of obviousness, applicants note that it is very difficult to carry out a refrigeration treatment for a palletized seed prior to sowing, because palletized seeds formed with clay materials per Asano would tend to dissolve during the preservation in the cooling solutions of Kohno et al.

Although a gel-coating according to the present invention avoids such problems, it is submitted that the existence of the problem which is not specifically addressed by either Kohno et al. or Asano would lead one away from the combination which the Examiner purports to be obvious.

Absent improper reliance upon applicants' own disclosure, it is submitted that there is no teaching within Kohno et al. or Asano which supports the Examiner combination of theses references.

In the *Response to Arguments* section of the Official Action the Examiner "maintains that the refrigeration taught by Kohno inherently effects the germination, since it is notoriously old and well-known in the art that cold breaks seed dormancy and provides for a more uniform germination."

First, it is submitted that if it is "notoriously old and well-known in the art that cold breaks seed dormancy and provides for a more uniform germination," the Examiner is requested to rely upon and cite a prior art reference so that applicants will not be prejudiced in their right to rebut the Examiner's unsupported position.

Second, it is noted that the Examiner switches between arguing "preventing defective germination or growth," "improving the germination of the encapsulated plant seed," "success rate of the plant," and "more uniform germination," while applicants substantiate by comparative tests results, improvements in germination rate, bolting rate, efflorescence, ratio of rosette-forming and stem length.

Kohno et al. neither addresses, appreciates, teaches nor anticipates the improvements which applicants have substantiated.

Therefore, it is submitted that applicants' improvements are unexpected over the Kohno et al. and therefore patentable over Kohno et al.

On page 4 of the Official Action the Examiner argues that applicants' broad claim language does not distinguish over the prior art. On page 5, the Examiner argues that applicants do not claim a time duration for the refrigeration.

It is noted that claim 13 recites that the encapsulated seeds are refrigerated at a temperature of about 15°C or lower for a sufficient period of time to improve the germination of the encapsulated plant seeds as compared to non-refrigerated encapsulated plant seeds.

Based upon the above distinctions between the prior art references relied upon by the Examiner and the present invention, and the overall teachings of prior art references, properly considered as a whole, it is respectfully submitted that the Examiner cannot properly rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicants' claimed invention.

Moreover, the Examiner cannot properly rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

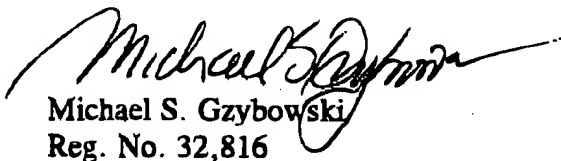
It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

The prior art cited on page 4 of the Official Action, but not relied upon by the Examiner has been reviewed but is not believed to be particularly relevant to applicants' claimed invention.

If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 02-0385 and please credit any excess fees to such deposit account.

Respectfully submitted,



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